

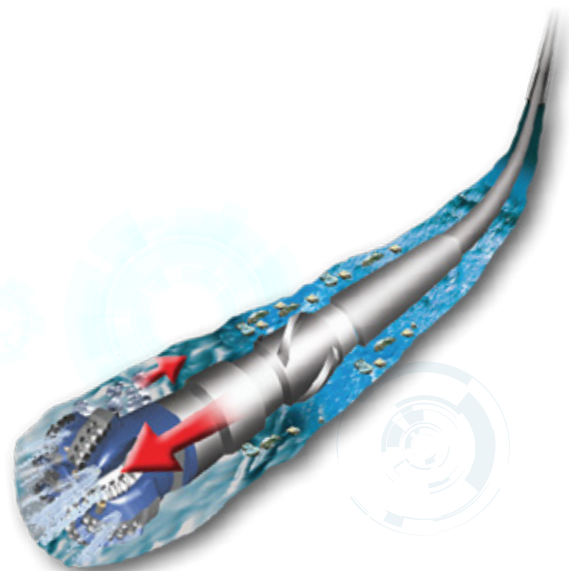
# SplitFlow

## Split Flow Hydraulics Model

### Overview

A circulation sub or bypass system can assist an operation in reducing drilling costs associated with different types of hole conditions. Originally developed to enable the aggressive pumping of LCM materials, these types of tools have evolved to benefit many applications in drilling, completion, and workover phases of a well. This increases annular velocity in highly deviated and horizontal wellbores where removal of cutting beds and hole cleaning are problematic.

The circulation sub location, sideway and downward ports affect flow split and pressure drops. Pegasus Vertex's SplitFlow model is designed to calculate the hydraulic parameters such as split ratio, pump pressure, and pressure drops under different nozzle and bit sizes. SplitFlow can optimize the operation by adjusting tool parameters. Computational results are shown graphically for quick and easy analysis.





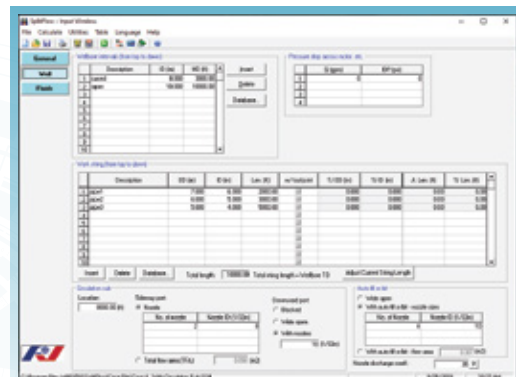
# SplitFlow—Split Flow Hydraulics Model

## Features

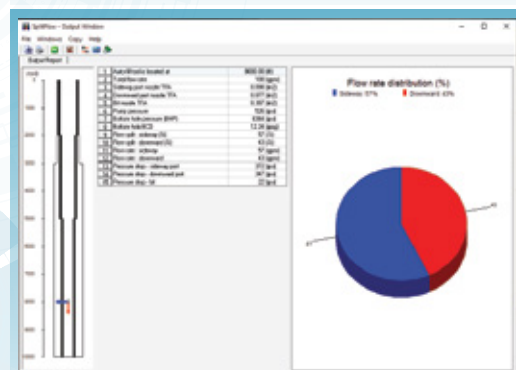
- Multiple wellbore intervals
- Up to 20 pipe sections
- Pipe database
- Bypass tool
- Tool joint effects
- Bingham plastic and power-law model
- Flow split calculation
- Port size sensitivity analysis
- Flow rate sensitivity analysis
- Microsoft Word® report
- US oil field, SI, and customized units

## System Requirements

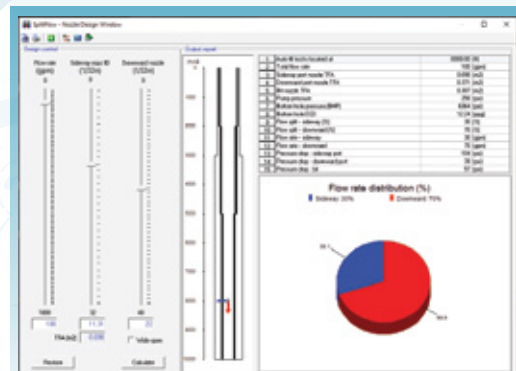
- Microsoft Windows® 10 or above
- Microsoft Office® 2016 or above
- Dual-core processor, 1.4 GHz or higher (Not compatible with ARM processor)
- 4 GB RAM
- 200 MB of free disk space for installation
- 1,280 x 768 display resolution



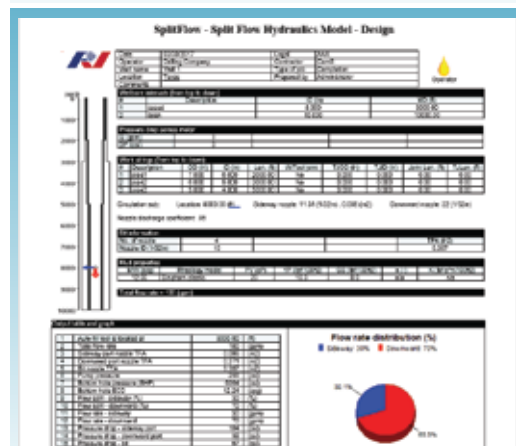
Split Flow Hydraulics



Flow Rate Distribution



Nozzle Design



Report

